



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/705,835

11/13/2003

Toshikazu Morisawa

04329.3176

7845

22852

7590

08/06/2007

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

CONNOLLY, MARK A

ART UNIT

PAPER NUMBER

2115

MAIL DATE

DELIVERY MODE

08/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/705,835

Applicant(s)

MORISAWA, TOSHIKAZU

Examiner

Mark Connolly

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 6-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-4, and 6-17 have been presented for examination.
2. Applicant's arguments with respect to claims 1-4 and 6-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 7, 13, -16 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson US Pat No 6189106.
5. Referring to claim 1, Anderson teaches the electronic apparatus having a plurality of operation modes comprising:
 - a. an internal clock unit configured to count a system time of the electronic apparatus [cols. 4-5 lines 64-9].
 - b. an operating mode setting unit configured to set the operation modes [col. 6 lines 19-27].
 - c. a time setting unit configured to set time information for carrying out each operation mode [col. 4 lines 31-43].
 - d. a time acquisition unit configured to periodically acquire the system time counted by the system clock unit [col. 4 lines 64-67 and col. 6 lines 7-9]. Although Anderson teaches continuously monitoring the time, it is inherent that continuously monitoring the

Art Unit: 2115

time actually refers to periodically acquiring the time. In particular, operations of a computer system can only during rising and/or falling edges of a system clock. These clocks are periodic in nature and thus, their clock edges occur in a periodic fashion as well. Therefore, when checking a system time, it is inherent that the system time would only be acquired during a clock edge and therefore since the edges occur periodically, the time would be acquired periodically as well.

e. an operation mode acquisition and determination unit configured to acquire a current operation mode and to determine whether the current operation mode corresponds to a desired operation mode, based upon the time zone information set by the time setting unit and the system time acquired by the time acquisition unit [col. 4 lines 64-67 and col. 6 lines 7-9]. In particular, Anderson teaches monitoring a system time and adjusting the power mode of the system when necessary based on the schedule.

f. a control unit configured to carry out an operation mode changeover to change to the desired operation mode if the determination unit determines that the current operation mode does not correspond to the desired operation mode [col. 5 lines 9-12 and col. 6 lines 21-27].

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-3, 7-9 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara¹ in view of Thelander² and further in view of Anderson.

¹ As cited in the previous office action.

8. Referring to claim 1, Sugahara teaches the apparatus comprising:
- g. an operating mode setting unit configured to set the operation modes [col. 5 lines 43-48].
 - h. a time setting unit configured to set time information for carrying out each operation mode [col. 12 lines 46-50]. In particular, Sugahara teaches managing the setting and management of the power save modes. It is therefore interpreted that the server comprises a time setting unit for setting times associated with the different operation modes. This interpretation is further apparent in fig. 11 wherein the different clients set different operating modes at different times. This leads to the interpretation that the scheduling of the different operation modes are not static and that different operation modes are set in accordance with a time deemed to be appropriate.
 - i. an operation mode acquisition and determination unit configured to acquire a current operation mode and to determine whether the current operation mode corresponds to a desired operation mode, based upon the time information set by the time setting unit and current time [col. 6 line 66- col. 7 line 8 and col. 7 lines 20-28]. In particular, when changing over to a scheduled power save operation mode, status information is received representing a current operation mode. If it is determined that the current operation mode does not correspond to a desired operation mode (i.e. the scheduled power save operation mode) a reissue of the power save mode control is made to change to the desired power save operation mode. By definition, a scheduled event occurs when a current time reaches a preset time.

² As cited in the previous office action.

j. a control unit configured to carry out an operation mode changeover to change to the desired operation mode if the determination unit determines that the current operation mode does not correspond to the desired operation mode [col. 5 lines 60-63 and col. 7 lines 13-19].

Although Sugahara teaches the operation mode setting unit, acquisition and determination unit and control unit, Sugahara does not explicitly teach a time setting unit that is included in the electronic apparatus for setting time zone information based on an input from a user for carrying out each operation of the electronic apparatus. In summary, Sugahara teaches scheduling operation modes for the apparatus through a secondary computer coupled to the apparatus via network rather than scheduling operation modes locally at the apparatus.

Thelander teaches a system wherein a user can set time zone information for scheduling operation modes of a computer which can be performed locally [figs. 4-5 and 10-11 and ¶'s 0045-0046, 0048 and 0063]. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Sugahara system to include the operation mode scheduling in Thelander to allow a user to set time zone information locally rather than remotely (i.e. for carrying out each operation mode of the apparatus) because it would provide means to incorporate the improved power management in additional systems such standalone computers as taught by Thelander.

In addition, Anderson teaches that when performing the scheduling locally rather than remotely [cols. 7-8 lines 52-3], Anderson teaches requiring an internal clock unit configured to count a system time of the electronic apparatus [cols. 4-5 lines 64-9]; a time acquisition unit configured to periodically acquire the system time counted by the internal clock unit [col. 6 line

Art Unit: 2115

66- col. 7 line 8 and col. 7 lines 20-28]; and determining whether the current operation mode corresponds to a desired operation mode based on the time zone information set by a time setting unit and the system time acquired by the time acquisition unit [col. 6 line 66- col. 7 line 8 and col. 7 lines 20-28]. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Sugahara-Thelander system to include the teachings of Anderson because it teaches additional necessities required to perform the scheduling locally rather than remotely thus facilitating the improved power management in standalone computers as taught by Anderson and Thelander.

9. Referring to claim 2, Thelander teaches when operating in a first normal operating mode (i.e. day scheme), turning a monitor off after the system has not been actively used for 20 minutes [935 fig. 10]. In addition, when operating in a second power saving operation mode (i.e. night scheme), the monitor is turned off after the system has not been actively used for 5 minutes [fig 11].

10. Referring to claim 3, Thelander teaches when operating in a first operating mode (i.e. day scheme), turning a hard disk off after the system has not been actively used for 30 minutes [937 fig. 10]. In addition, when operating in a second operation mode (i.e. night scheme), the hard disk is turned off after the system has not been actively used for 5 minutes [fig 11].

11. Referring to claim 7-9, these are rejected on the same basis as set forth hereinabove. Furthermore, the Sugahara-Thelander-Anderson system teaches selecting one of a plurality of power saving modes to execute in accordance with a scheduled time [Thelander: 447 and 449 fig. 5].

Art Unit: 2115

12. Referring to claims 13-16, these are rejected on the same basis as set forth hereinabove.

Sugahara, Thelander and Anderson teach the apparatus and therefore teaches the method performed by the apparatus and program implementing the functionality of the apparatus.

13. Claims 4, 6, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara, Thelander and Anderson as applied to claims 1-3, 7-9 and 13-16 above, and further in view of Nakai³.

14. Referring to claims 4, 6, 10 and 12, although Sugahara, Thelander and Anderson teach operating in lower power modes during scheduled times, it is not explicitly taught how the system reduces its power consumption in relation to optical disk drives. Nakai explicitly teaches that power can be conserved in a power saving mode by reducing a disk rotation speed [col. 18 lines 12-20]. Because Sugahara, Thelander and Anderson are concerned with adjusting a systems power consumption in accordance with a schedule, it would have been obvious to one of ordinary skill in the art to reduce a disk rotation speed during a power save mode so that power consumption can be minimized.

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara, Thelander and Anderson as applied to claims 1-3, 7-9 and 13-16 above, and further in view of Yamanaka⁴.

16. Referring to claim 11, although Sugahara, Thelander and Anderson teach operating in lower power modes during scheduled times, it is not explicitly taught how the system reduces its

³ As cited in the previous office action.

Art Unit: 2115

power consumption in relation to a processor and its cooling fan. Yamanaka explicitly teaches conserving power by throttling a processor speed rather than running a processor fan [abstract].

Because Sugahara, Thelander and Anderson are concerned with adjusting a systems power consumption in accordance with a schedule, it would have been obvious to one of ordinary skill in the art to cool a processor via fan during times where power saving is not a concern in order to allow the processor to operate “normally” and throttling a processor speed rather than running a processor fan during times when the system is scheduled to enter a power save mode so that power consumption can be minimized.

17. Referring to claim 17, in addition to operating in a normal and power save mode, Yamanaka further teaches operating in a quiet mode when CPU cooling is performed by clock throttling rather than utilizing the CPU fan [abstract]. A quiet mode is interpreted as a silence mode since both are intended to reduce noise.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

⁴ As cited in the previous office action.

Art Unit: 2115

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

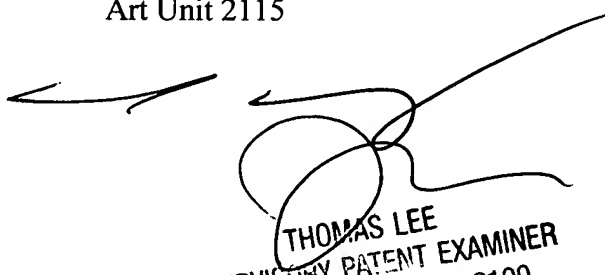
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark Connolly
Examiner
Art Unit 2115

mc
July 29, 2007



THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100